AMENDMENTS TO THE SPECIFICATION

On page 1, after the title and before the first sentence in the first paragraph, please insert the following paragraph:

This application is a continuation of U.S. patent application serial number 10/047,433, filed on January 15, 2002; which is a continuation of international application number PCT/NL01/00134, filed on 19 February 2001; which claims priority from European patent application number EP 00200565.0, filed 18 February 2000; European patent application number EP 00200566.8 filed 18 February 2000; and European patent application number EP 00203547.5 filed 12 October 2000, all of which are hereby incorporated herein by reference.

With the paragraph starting on page 1, line 4, please amend the specification as follows:

In implant surgery and in particular for implantation of a hip prosthesis, it is common ~~practise~~ practice to cement the prosthesis to the bone. In order to cement the prosthesis to the bone, the bone canal is broached or reamed, such that the trabecular, porous bone portions are removed and the remaining cortical, hard bone portions define the walls of the bone canal. An anchoring portion of the prosthesis is then inserted into the bone canal, for example an anchoring portion of a hip ~~prothesis~~ prosthesis is inserted into a broached femural bone, such that a ball portion of the ~~prothesis~~ prosthesis extends outward to replace the natural ball portion of the hip bone.

With the paragraph starting on page 1, line 17, please amend the specification as follows:

In order to provide for a secure joint between the prosthesis and the bone at the cement interface, it is desired to have the cement completely surround the prosthesis in the interstices between the prosthesis and the bone material. However, the insertion forces and pressures exerted during insertion of the implant often drive the cement substance down into the intramedullary canal and away from the fixation area. This way,

voids are formed in the cement mantle which later become stress points leading to early fatigue of the ~~prothesis~~ prosthesis and/or the fixation.

With the paragraphs starting on page 4, line 12, please amend the specification as follows:

Preferably, the copolymer comprises 20-90 wt.%, more preferably 50-80 wt.% of the polyalkylene glycol ~~terephtalate~~ terephthalate, and 80-10 wt.%, more preferably 50-20 wt.% of the aromatic polyester. A preferred type of copolymers according to the invention is formed by the group of block copolymers.

The polyalkylene glycol ~~terephtalate~~ terephthalate may have a weight average molecular weight of about 150 to about 4000. Preferably, the polyalkylene glycol ~~terephtalate~~ terephthalate has a weight average molecular weight of 200 to 1500. The aromatic polyester preferably has a weight average molecular weight of from 200 to 5000, more preferably from 250 to 4000. The weight average molecular weight of the copolymer preferably lies between 10,000 and 300,000, more preferably between 40,000 and 120,000.

With the paragraphs starting on page 5, line 4, please amend the specification as follows:

In a preferred embodiment, the polyalkylene glycol terephtalate ~~terephtalate~~ terephthalate component has units of the formula -OLO-CO-Q-CO-, wherein O represents oxygen, C represents carbon, L is a divalent organic radical remaining after removal of terminal hydroxyl groups from a poly(oxyalkylene)glycol, and Q is a divalent organic radical.

Preferred polyalkylene glycol ~~terephtalates~~ terephthalates are chosen from the group of polyethylene glycol ~~terephtalate~~ terephthalate, polypropylene glycol ~~terephtalate~~ terephthalate, and polybutylene glycol ~~terephtalate~~ terephthalate and copolymers thereof, such as poloxamers. A highly preferred polyalkylene glycol ~~terephtalate~~ terephthalate is polyethylene glycol ~~terephtalate~~ terephthalate.

The terms alkylene and polyalkylene generally refer to any isomeric structure, i.e., propylene comprises both 1,2-propylene and 1,3-propylene, butylene comprises 1,2-

butylene, 1,3-butylene, 2,3-butylene, 1,2-isobutylene, 1,3-isobutylene and 1,4-isobutylene (tetramethylene) and similarly for higher alkylene homologues. The polyalkylene glycol ~~terephtalate~~ terephthalate component is preferably terminated with a dicarboxylic acid residue -CO-Q-CO-, if necessary to provide a coupling to the polyester component. Group Q may be an aromatic group having the same definition as R, or may be an aliphatic group such as ethylene, propylene, butylene and the like.

With the paragraphs starting on page 6, line 1, please amend the specification as follows:

The preparation of the copolymer will now be explained by way of example for a polyethylene glycol ~~terephtalate~~ terephthalate/polybutylene terephthalate copolymer. Based on this description, the skilled person will be able to prepare any desired copolymer within the above described class. An alternative manner for preparing polyalkylene glycol ~~terephtalate~~ terephthalate/polyester copolymers is disclosed in US-A-3,908,201.

A polyethylene glycol ~~terephtalate~~ terephthalate /polybutylene terephthalate copolymer may be synthesized from a mixture of dimethyl terephthalate, butanediol (in excess), polyethylene glycol, an antioxidant and a catalyst. The mixture is placed in a reaction vessel and heated to about 180°C, and methanol is distilled as transesterification proceeds. During the transesterification, the ester bond with methyl is replaced with an ester bond with butylene and/or the ~~polyethyene~~ polyethylene glycol. After transesterification, the temperature is raised slowly to about 245°C, and a vacuum (finally less than 0.1 mbar) is achieved. The excess butanediol is distilled off and a prepolymer of butanediol terephthalate condenses with the polyethylene glycol to form a polyethylene/polybutylene terephthalate copolymer. A terephthalate moiety connects the polyethylene glycol units to the polybutylene terephthalate units of the copolymer and thus such a copolymer also is sometimes referred to as a polyethylene glycol terephthalate/polybutylene terephthalate copolymer (PEGT/PBT copolymer).

With the paragraphs starting on page 6, line 24, please amend the specification as follows:

The invention will be elucidated further by ~~means of~~ ~~a drawing~~ the following drawings. ~~In the drawing is:~~

[[Fig.]] Figure 1 [[a]] schematically depicts a cross sectional view of a bone plug;

[[fig.]] Figure 2 [[a]] schematically depicts a perspective view of the bone plug of [[fig.]] Figure 1;

[[fig.]] Figure 3 [[a]] schematically depicts a cross sectional view of a portion of a bone canal in which the plug is inserted;

[[fig.]] Figure 4 shows a photograph of a bone plug corresponding to [[fig.]] Figure 1;

[[fig.]] Figure 5 shows a photograph of the bone plug of [[fig.]] Figure 4 inserted in a bore in a block of transparent material;

[[fig.]] Figure 6 shows a photographic top view of the block of [[fig.]] Figure 5; and

[[fig.]] Figure 7 shows a cross section of a flange having different types of flexing zones for enhancing ~~flexibilitity~~ flexibility of the flange.

With the paragraph starting on page 7, line 9, please amend the specification as follows:

[[Fig.]] Figure 1 and [[fig.]] Figure 2 show a plug 1 for insertion into a bone canal. The plug 1 comprises an elongate central body 2 of substantially constant cross section. The central body 2 carries four radially extending flanges of equal shape and size. The flanges 3 form solid, disk-like structures having a closed surface, free of cuts. The flanges 3 do not comprise any cuts and upon deformation, maintain a closed sealing surface. The flanges 3 are axially spaced along the central axis A of the body 1 and extend in substantially parallel planes P. The plug 1 is, as set out above, made of a copolymer of a polyalkylene glycol ~~terephtalate~~ terephthalate and an aromatic polyester.

With the paragraphs starting on page 8, line 1, please amend the specification as follows:

The plug 1 further comprises a blind bore 11, extending axially from a rear portion 8 of the plug towards the front portion 4. The blind bore 11 can be used to insert the tip of a tool 12 with which the plug 1 is inserted in an inserting direction 13 into a bone canal 14, as shown in [[fig.]] Figure 3.

In [[fig.]] Figure 3 it is shown how, due to the combination of the configuration and the material of the plug 1, the plug 1 can deform to cooperate both sealingly and blockingly with the sidewalls of the bone canal.

Referring to [[fig.]] Figure 4, a photograph is shown of the bone plug 1, analogous to the drawing shown in [[fig.]] Figure 2.

[[Fig.]] Figure 5 shows a photograph of the bone plug 1 inserted into a cylindrical canal in a block B of transparent material.

[[Fig.]] Figure 6 shows a photographic top view of the block of [[fig.]] Figure 5.

From [[figs.]] Figures 5 and 6, it is clear that the flanges sealingly engage the walls of the bore in the block B. In [[fig.]] Figure 5 it is shown that the front flange 5, due to its smaller radial dimension, shows a lower degree of backward flexing than the other flanges 3. The top view of [[fig.]] Figure 6 shows the rear flange 3 having a closed surface, free of cuts.

As shown in [[fig.]] Figure 7, to further enhance flexibility, a flange 3 can be provided with several flexing zones Z having reduced material thickness t2 relative to the thickness t1 of the material at supporting zones S that surround the flexing zones Z. In particular, the flange 3 is provided with apertures that extend axially along axis A' through the flange 3 form the top surface 6 to the bottom surface 9, namely a straight trough hole 21 and an axially tapered perforation 22 which may close upon swelling of the material of the supporting zone S. In these cases, the thickness t2 of the material at the flexing zone Z is locally reduced to zero. Apertures that do not axially extend through the flange are also shown as a void 23 and a blind hole 24.

It shall be clear to the skilled man that the plug is not limited to the preferred embodiments described herein and that many variations are possible within the scope of the appended claims. For example, it is possible to provide the flanges with radial cuts.

Such cuts may in use be closed due to the swellable ~~behaviour~~ behavior of the copolymer of polyalkylene glycol ~~tetraphtalate~~ terephthalate and aromatic polyester.

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